

## Claims

1. A bottle can member which is made of a metal member in a cylindrical shape with a bottom section and has a thread section on a mouth section wherein:
  - 5 an outer diameter of the thread section which is formed on the mouth section is 28 to 38 mm;
  - a thickness of the thread section is 0.25 to 0.4 mm; and
  - an effective thread number of the thread section is 2.0 to 2.5.
- 10 2. A bottle can member according to Claim 1 wherein a thread pitch of the thread section which is formed on the mouth section is 8 threads per an inch.
3. A bottle can member according to Claim 1 or 2 wherein a height h from a starting  
15 point of the thread in the thread section to an upper end surface of the mouth section is set to be in a range of  $0.7 \leq (D1-D2)/h \leq 1.3$  under condition that D1 indicates an outer diameter of the thread and D2 indicates an outer diameter of a curl section.
4. A bottle can member according to Claim 1 wherein  
20 an slant angle  $\theta$  of a slant section is set to be in a range of  $33^\circ \leq \theta \leq 55^\circ$ .
5. A bottle wherein a cap is put on a mouth section of the bottle can member according to Claim 1.
- 25 6. A bottle can member according to Claim 1 wherein

a height of a first thread in a thread area in the thread section is set to be lower than a height of a thread of other thread in a predetermined angle range.

7. A bottle can member according to Claim 1 wherein

5 in an area except an area which overlaps a plurality of stages and an incomplete thread section in a thread end section, a height of the thread in the first thread is set to be lower than the height of the second thread.

8. A bottle comprising the bottle can member according to Claim 6 and the cap

10 which is put on the mouth section of the bottle can member.

9. A bottle comprising the bottle can member according to Claim 7 and the cap which is put on the mouth section of the bottle can member.

15 10. A method for forming a mouth section on the bottle can member so as to form the thread section which has a thread area which is formed by a plurality of stages toward a can bottom direction from a tip of the mouth section around an outer periphery of the mouth section of the bottle can member wherein:

a thread number is 2.0 to 2.5; and

20 when a thread section is formed, a height of the first thread which is disposed near a tip of the mouth section of the bottle can member is set to be lower than the thread of other stages in a predetermined angle range.

11. A method for forming a mouth section of the bottle can member according to

25 Claim 10 wherein

the predetermined angle range is in a range within 90 degrees from the thread starting section of the thread section.

12. A thread forming device for a bottle can member comprising:

5 a core which contacts an inner surface of a mouth section of the bottle can member and has a thread forming section for disposing a thread section which is supposed to be formed in the mouth section on an outer periphery; and

an outer member which contacts the outer periphery of the mouth section and has a thread forming section which has a corresponding shape to the thread forming section of  
10 the core around the outer periphery, wherein,

the core and the outer member rotate around an axial center of the bottle can member while sandwiching the mouth section;

a thread section which has a thread area is formed so as to have a thread number 2.0 to 2.5;

15 in the thread forming section of the core, the first thread forming section for forming the first thread in the thread area in the mouth section is formed so as to be lower than the thread forming section in other stages in a predetermined angle range.